

INDEX OF VOLUME XII.

- Abdominal Structures of Orthopteroid Insects, 267.
 Acrididæ, 282.
 Acridoidea, 282.
 Acrydiidæ, 282.
 Achroia grisella, 76.
 Acronycta americana, 76.
 Adela bella, 353.
 Adoretus tenuimaculatus, 171.
 Aeromyrma, 175.
 Agalena mimoides, 255.
 Agrilus walsinghami, 10.
 Aldrich, J. M., description by, 380.
 Report of Sec., 59.
 Alexander, C. P., articles by, 25, 327.
 Allodorus major, 20.
 Alsophila pometaria, 76.
 Amara erratica, 8.
 Amaurobius bennetti, 240.
 nevadensis, 239.
 nomeus, 240.
 pictus, 240.
 utahensis, 239.
 Anasa tristis, 193.
 Anisodactylus, 11.
 dilatatus, 11.
 Anisolabis maritima, 303.
 Anomala, 12.
 orientalis, 171.
 Anosia plexippus, 193.
 Ants of the Genus Metapone, 173.
 Antocha, 330.
 satsuma, 332.
 spinifer, 331.
 Apatela americana, 76.
 Aquatic Adaptations of Pyrausta penitalis, 213.
 Aranea tusigia, 254.
 utahana, 254.
 Asida, 9.
 Asphondylia websteri, 159, 160, 161, 162, 163, 165, 167, 170.
 Athous ferruginosus, 5.
 Atteva aurea, 76.
 Automeris io, 76.

 Basilarchia archippus, 76.
 Bathyphantes fillmoranus, 249.
 fratrella, 250.
 Bellura melanopga, 216.
 Bembidium incertum, 8.
 Blattidæ, 296.
 Blattoidea, 296, 311.
 Bombyx mori, 76, 193, 200.
 Botis nelumbialis, 214.
 Brachynus cyanipennis, 383.
 Braun, Annette F., article by, 349.
 Brennus, 2.
 Bruchophagus funcbris, 161.
 Brues, C. T., article by, 13.

 Californian species of Malthodes, 31.
 Callimone asphondyli, 161.
 Callosamia promethia, 193.
 Carabid Genera Brachynus Galerita and Chlaenius, Biology of, 382.
 Carabus taedatus, 4.
 Calotermes, 175.
 Carabara, 175.
 Cecidomyid Galls, Chalcid wasps from, 159.
 Ceratomiæ catalpæ, 76.
 Cerura, 44.
 vinula, 47.
 Ceuthophilus, 274, 278, 279.
 lapidicola, 278.
 Chalcid fly parasitic on Australian bulldog ant, 13.
 Chalcid wasps from Cecidomyid galls, 159.
 Chamberlin, R. V., article by, 239.
 Chariesterus and its Neotropical Relatives, 227.
 Chriesterus albiventris, 228.
 antennator, 227.
 armatus, 228.
 balli, 228, 229.
 cuspidatus, 228.
 gracilicornis, 228.
 moestus, 228.
 Chlaenius impunctifrons, 95.
 Biological Notes on, 95.
 Chlaenius aestivus, 95, 382, 384.
 cericeus, 383, 384.
 impunctifrons, 95, 382, 383, 385.
 tricolor, 383, 384.
 Chlorotettix fumidus, 237.
 productus, 236.
 Cibdelis, 11.
 Cicadellidæ, 231.
 Cicurina garrina, 255.
 idahoana, 258.
 utahana, 257.
 utahana anderis, 257.
 Cirphis unipuncta, 76.
 Claasen, P. W., article by, 95.
 Clubiona orinoma, 255.
 Coelus, 11.

- Coniotus, 11.
 Conocephalus, 280.
 fasciatus, 279.
 Copris, 12.
 Cornicularia monticolens, 251.
 Crane Flies of the Hawaiian Islands
 (Tipulidæ Dipt.), 25.
 Craneflies, Japanese, 327.
 Cryptocercus punctulatus, 301.
 Cryptohypnus bicolor, 8.
 Cyanauges cyanella, 354.
 Cychrus tuberculatus, 4.
 Cylindromyrmex, 173, 175, 176.
 meinerti, 175.
 striatus, 176.
 Cylindrotoma, 344.
 japonica, 344.

 Datana integerrima, 76.
 ministra, 76.
 Deltocephalus delector, 233.
 latidens, 234.
 Deltometopus rufipes, 49.
 Immature stages of, 49.
 DeLeng, D. M., and Sanders, J. G.,
 article by, 231.
 Dermaptera, 303, 312.
 Detweiler, J. D., and Herrick, G. W.,
 article by, 44.
 Diabrotica soror, 11.
 Diapheromera femorata, 293.
 Diatraea saccharalis, 76.
 Dicaelus, 12, 95.
 Dickerson, E. L., article, 369.
 Dicranomyia, 25.
 foliocuniculator, 28.
 grimshawi, 27.
 hawaiiensis, 28.
 jacobus, 28.
 stygipennis, 27.
 swezeyi, 29.
 Dicranomyia, 327.
 atripleura, 328.
 basifusca, 328.
 immodestoides, 327.
 mesosternata, 329.
 Dicranoptycha, 332.
 yamata, 332.
 Dicranota, 344.
 nipponica, 344.
 Dictyna arundinaceoides, 241.
 bellans, 242.
 coloradensis, 241.
 insolens, 242.
 olympiana, 243.
 sociella, 242.
 sublata, 241.
 unitana, 240.
 vincens, 243.
 Dietz, W. G., article by, 85.
 Dioryctria abeitella, 76.

 Diplocephalus wamotsus, 251.
 Dipterous Genus Tipula, Streptocera
 Group, 85.
 Dissosteira carolina, 193.
 Distribution of Insects in Western
 N. Am., 1.
 Drassodes gosiutus, 245.
 melius, 246.
 robinsoni, 245.
 Dyctinoides, 243.
 arizonensis, 244.
 Dystaxia, 11.

 Edrotes, 9.
 Eleodes, 10.
 Embidæ, 305.
 Embidiina, 305, 313.
 Ephebomyrmex, 175.
 Ephelia subaprilina, 340.
 Ephemerida, 308.
 Epimartyria, 353.
 Erax, Robberflies of the Genus, 103.
 Erax æstuans, 105, 120, 124.
 affinis, 105, 121.
 anomalus, 105, 119.
 apicalis, 105, 125.
 aridus, 105, 117.
 armatus, 105, 112.
 aurimystaceus, 105, 122.
 argentifrons, 106, 148.
 argyrogaster, 106, 152.
 argyrosoma, 106, 144.
 auripilus, 105, 145.
 aurivestitus, 105, 142.
 barbatus, 105, 108, 109.
 belfragei, 105, 121.
 bicolor, 105, 110.
 bimaculatus, 105, 115.
 bicaudatus, 105, 138.
 californicus, 106, 150.
 candidus, 105, 119.
 canus, 106, 145.
 carinatus, 106, 131.
 cingulatus, 105, 111.
 comatus, 106.
 concinatus, 106, 131.
 coquilletti, 106, 149.
 costalis, 106, 134.
 cressoni, 106, 134.
 dubius, 106, 141.
 eximius, 106, 146.
 femoratus, 106, 123.
 fulvibarbis, 105, 129.
 grandis, 105, 111.
 harveyi, 105, 115.
 haloesus, 105, 130.
 inflatus, 106, 146.
 interruptus, 107, 153.
 jubatus, 106, 133.
 kansensis, 105, 122.
 latrunculus, 106, 132.

- Erax* (continued)
leucocomus, 105, 114.
loewii, 105, 125.
mexicanus, 105, 123.
nemoralis, 107, 147.
nigrimystaceus, 106, 130.
nigritarsis, 106, 129.
pallidulus, 107, 144.
parvulus, 106, 132.
pernicis, 105, 120.
pilosus, 107, 150.
portoricensis, 106, 128.
plenus, 107, 148.
prattii, 105, 117.
productus, 106, 136.
quadrimaculatus, 105, 114.
rapax, 107, 142.
rufibarbis, 106, 137.
rufitibia, 106, 128.
sagax, 105, 113.
slossonæ, 105, 121.
snowi, 105, 116.
spiniventris, 106, 135.
splendens, 107, 143.
stramineus, 107, 140.
stylatus, 106, 127.
subcupreus, 106, 133.
subpilosus, 105, 118.
tagax, 105, 113.
tabescens, 106, 126.
texanus, 107, 151.
triton, 107, 151.
truncatus, 107, 143.
tuberculatus, 106, 135.
unicolor, 106, 132.
varipes, 107, 152.
willistoni, 105, 110.
zonalis, 105.
zonatus, 112.
- Erioptera*, 338.
bifurcata, 338.
- Eucharis myrmiciæ*, 13.
Eulabis, 11.
Eupagoderus, 9.
Eurytoma medicaginis, 159.
Euschistus fissilis, 193.
variolaris, 193.
- Evarthrus*, 12.
- Fall, H. C., article by, 31.
Feltia sp., 76.
Forficula auricularia, 303.
 Fracker, S. B., article by, 227.
 Gahan, A. B., article by, 159.
- Galeopsomopsis multisulcatus*, 168.
transcarinatus, 168.
- Galerita*, 95.
bicolor, 382, 383.
- Glyptosecelimorpha*, 11.
- Gonomyia*, 25, 30.
gracilis, 30.
hawaiiensis, 30.
skusei, 30.
- Grammonota orites*, 249.
obesior, 250.
simplex, 250.
- Gryllidæ*, 280.
- Grylloblatta*, 289.
- Grylloblatta*, 270, 271.
campodeiformis, 270.
- Grylloblattidæ*, 289, 310.
- Grylloblattoidea*, 289.
- Gryllus assimilis*, 281, 282.
- Grylloidea*, 280.
- Harrisina americana*, 76.
- Hemerocampa leucostigma*, 76.
- Hepialidæ*, 356.
- Herrick, G. W., and Detweiler, J. D.,
 article by, 44.
- Herpyllus oabus*, 246.
- Hilaira uta* 253.
- Hine, J. S., article by, 103.
- Hoplogryon*, 387.
- Hylemyia nidicola*, 374, 380.
- Hyphantria cunea*, 76.
- Immature Stages of *Deltometopus*
rufipes, 49.
- Ipochus*, 11.
fasciatus, 11.
- Ischnoptera pensylvanica*, 297.
- Isoptera*, 302, 312.
- Japanese Craneflies, 327.
- Jassids from the Eastern United
 States, 231.
- King, J. L., article by, 382.
- Lachnosterna*, 12.
- Lagoa crispata*, 76.
- Lathys trivittata*, 244.
- Lasiomastix pilifer*, 339.
- Leiponeura*, 30.
- Lepidoptera*, Male Genital System, 192.
 Wing Structure of, 349.
- Lepidopterous larvæ*, Olfactory sense
 of, 65.
- Lepisma*, 309.
- Leptogenys mucronata*, 175.
- Lespeyresia molesta*, 76.
pomonella, 76.
- Leucotermes flavipes*, 302.
- Libnotes*, 25.
perkinsi, 26.
- Life History and Biological Notes on
Chlaenius impunctifrons Say (Carabi-
bidæ Coleop), 95.

- Limnophila, 339.
 pilifer, 339.
 rufipennis, 341.
 subaprilina, 340.
 Linyphia latescens, 248.
 orinoma, 248.
 insignis, 248.
 Liogma, 345.
 serraticornis, 345.
 Lucanus, 12.

 Machilis, 309.
 Macrosiagon ferruginea, 20.
 Macrurocampa, 44.
 Malacosoma americana, 76.
 Malthodes, Californian species, 31.
 Malthodes—
 appendiculatus, 33, 38.
 basalis, 33, 36.
 bicurvatus, 33, 39.
 complicatus, 33, 40.
 fuscus, 33, 41.
 laticollis, 33, 34.
 mitificus, 33, 37.
 magister, 33, 34.
 mollis, 33, 37.
 var longipennis, 38.
 obdustus, 33, 39.
 piceolus, 33, 37.
 reflexus, 33, 34.
 sericeiventris, 33, 40.
 tularensis, 33, 41.
 vapidus, 33, 41.
 vigilans, 33, 36.
 visceratus, 33, 42.
 Male Genital System of certain
 Lepidoptera, 192.
 Mantoidea, 294, 311.
 McIndoo, N. E., article by, 65.
 Megalopyge opercularis, 76.
 Melanoplus bivittatus, 283.
 Melanotus, 12.
 Metapone, Ants of the Genus, 173.
 Metapone, 173.
 bakeri, 186.
 greeni, 179.
 hewitti, 189.
 leae, 183.
 mjobergi, 181.
 sauteri, 182.
 tillyardi, 187.
 Metrius, 3.
 Micropterygidæ, 349.
 Miscodera insignis, 4.
 Mnemonica, 352.
 Monilema, 9.
 Mosher, Edna, article by, 49.
 Muir, F., article by, 171.
 Myrmecia forficata, 13.
 gulosa, 13, 15.

 Nebria columbiana, 8.
 diversa, 9.
 ingens, 9.
 kincaidi, 8.
 mannerheimi, 4.
 ovipennis, 8.
 sahlbergi, 8.
 trifaria, 8.
 Neoscona utahana, 254.
 Nepticula planatella, 354.
 Nepticulidæ, 349.
 Nesospeza, 347.
 tarsalis, 347.
 New Western Spiders, 239.
 Nezara viridula, 193.
 Notodontid caterpillars, Repugnatorial
 glands of, 44.
 Nyctoporis, 11.

 Odonata, 309.
 Oceanthus, 282.
 quadripunctatus, 282.
 Olfactory sense of Lepidopterous
 Larvæ, 65.
 Omus, 2.
 Omus dejeani, 4.
 Onthophagus, 12.
 Ophrastes, 9.
 Ormosia, 334.
 atripes, 335.
 cinctifer, 336.
 diversipes, 334.
 takahashii, 337.
 tokionis, 336.
 Orthoptera, 278, 310.
 Orthopteroid Insects, Abdominal
 Structures of, 267.
 Osborn, Herbert, Report of Man-
 aging Editor, 61.

 Pachysima æthiops, 174.
 latifrons, 174.
 Paedalgus, 175.
 Papilio polyxenes, 76.
 Paragaleospomyia gallicola, 167.
 Parapsilogaster, 13.
 Paratropeza, 333.
 flavitibia, 333.
 Parcoblatta pennsylvanica, 297.
 Pardosa utahensis, 258.
 Pasimachus, 12.
 Pectinophora gossypiella, 76.
 Perilampus, 15.
 Phalacrocera, 346.
 mikado, 346.
 Phasmoidea, 292, 310.
 Pheidole fraudulentus, 13.
 megacephala, 13.
 Philosamia cynthia, 193.
 Phlegethontius sexta, 76.

- Phlepsius tenuifrons*, 235.
tinctorius, 235.
Phloeodes, 11.
Phormia azurea, 373.
chrysorrhea, 376.
metallica, 374, 379.
Phyllophaga, 12.
Pieris brassicae, 193.
rapae, 193.
Palpigus, 227.
 Plath, O. E., article by, 373.
Platymetopius collaris, 232.
rubellus, 231.
Platymetopius hyalinus, early stages of, 369.
Platynus, 10.
bogemanni, 7.
jejunus, 10.
Plecoptera, 307, 313.
Pliniaca, 354.
Polyangaeus, 342.
japonicus, 342.
Pontia rapae, 76.
 Prevalence of *Phormia azurea*, 373.
Prionolabis rufipennis, 341.
Prionoxystus, 355.
Pristoceuthophilus, 279.
cercalis, 279.
Proantocha, 330.
spinifer, 331.
 Proceedings Thirteenth Annual Meeting, 57.
Prodenia ornithogalli, 76.
Prodoxus, 353.
Promecognathus, 3.
Pronuba, 356.
yuccasella 362.
Prosocantha caraborum, 387.
Pseudocatholaccus americanus, 164.
asphondylia, 164.
Pseudomyrma kunckeli, 175.
Psilochorus utahensis, 247.
Psilogaster fasciiventris, 14.
pallipes, 13.
Pteromalus polyphagus, 164.
Pteronarcys, 307.
Pterostichus, 3, 6.
amethystinus, 5.
brunneus, 9.
caligans, 6.
grandiceps, 6.
herculaneus, 4.
ovicollis, 6.
protractus, 7.
rostratus, 6.
scutellaris, 5.
sphodrinus, 6.
validus, 4.
Pyrausta penitalis, Aquatic Adaptations of, 213.
Renia flavipunctalis, 354.
 Report, Committee on Resolutions, 62.
 of Auditing Committee, 62.
 of Nomination Committee, 62.
 Report of Managing Editor, 61.
 Report of Secretary, 58.
 Report of Treasurer, Thomas Say Foundation, 61.
 Repugnatorial Glands, 44.
 Resolutions on death of S. W. Williston, 56.
Raphodolabis, 343.
flavibasis, 343.
Rhigopsis, 11.
Rhycophila, 352.
Rhynchites bicolor, 5.
 Riley, W. A., Proposed Amendment, 172.
Ripteryx, 286, 287.
forcipata, 286.
mexicana, 287.
 Robberflies of the Genus *Erax*, 103.
Rosalia funebris, 3.
 Ruckes, Herbert, article by, 192.
Sabatanca, 355.
Samia cecropia, 195, 354.
 Sanders, J. G., and DeLong, D. M., article by, 231.
 Say Foundation, Report of Treas., 61.
Scaphinotus, 3, 4, 6.
angulatus, 4.
angusticollis, 4.
behrensi, 4.
debilis, 6.
imperfectus, 6.
incompletus, 6.
Scarites subterraneus, 95.
Schizopus, 11.
Schizura concinna, 44.
Scolia, 171.
Scoliae manilae in Hawaii, 171.
Scoliaula, 355.
Sibine stimulea, 76.
Sima, 173, 175, 176.
Simopone, 173, 175, 176.
 Spiders, New Western. 239.
Stagmomantis carolina, 294.
Staluptius marginalis, 227.
Streptocera Group of the Dipterous genus *Tipula* Linnaeus, 85.
Styrgomyia, 25.
didyma, 25, 30.
Syntomaspis elegantissimus, 163.
medicaginis, 162, 163.
thalassimus, 162.
umbilicata, 162.
warreni, 163.
Sysyrosea textula, 354.

- Terminal Abdominal Structures of
Orthopteroid Insects, 267.
- Termopsis angusticollis, 302.
- Tetraponeura, 176.
- Tetrastichus sobrinus, 166.
brucophagi, 167.
- Tettigonia verrucivora, 280.
- Tettigonoidea, 278.
- Thelca polyphemus, 193.
- Thyridopteryx ephemeriformis, 76.
- Timena californica, 292.
- Tineola, 354.
- Tipula Dipterous Genus Streptocera
group, 85.
- Tipula derbyi, 85.
devia, 85, 86.
fragmentata, 85, 87.
joana, 347.
monochroma, 85, 88.
mutica, 85, 91.
opisthocera, 85, 90.
streptocera, 85.
var. pallidocera, 85, 92.
trypetophora, 85, 89.
- Tipulidæ, 327.
of Hawaiian Islands, 25.
- Townsend, C. H. T., description by, 379.
- Trichoptera, 349.
- Tridactylidæ, 286.
- Tridactyloidea, 286.
- Tridactylus, 270.
- Trigonoscuta, 11.
- Trigonurus, 3.
- Trimicra, 25, 30.
lateralis, 30.
- Trimeromicrus maculatus, 165, 166, 167.
- Triorophus, 9.
- Uloborus utahensis, 244.
- Valentinia glandulella, 76.
- Van Dyke, E. C., article by, 1.
- Vanessa antiopa, 193.
- Walker, E. M., article by, 267.
- Weiss, Harry B., article by, 369.
- Welch, Paul S., article by, 213.
- Wheeler, W. M., article by, 173, 174.
- Williston, Dr. S. W., Resolutions on
the death of, 56.
- Wing Structure of Lepidoptera, etc., 349.
- Wubana, 252.
drassoides, 252, 253.
pacifica, 253.
retrahens, 253.
- Zacotas, 3.
- Zelotes ater, 247.
tuobus, 247.
- Zopherus, 9.
- Zorotypus, 270, 271.